

UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION

PATENT NO. : 6,951,465 B2
APPLICATION NO. : 10/603047
DATED : October 4, 2005
INVENTOR(S) : Sweetland et al.

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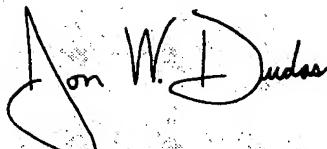
It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

THE TITLE PAGE SHOWING ILLUSTRATIVE FIGURE, SHOULD BE DELETED
AND SUBSTITUTE THEREFORE THE ATTACHED TITLE PAGE

DELETE DRAWING SHEETS 1-40 AND **SUBSTITUTE** THEREFORE THE
DRAWING SHEETS CONSISTING OF FIGS 1-41 AS SHOWN ON THE
ATTACHED PAGE.

Signed and Sealed this

Twenty-eighth Day of August, 2007

A handwritten signature in black ink, reading "Jon W. Dudas". The signature is written in a cursive style with a large, stylized "J" and "D".

JON W. DUDAS
Director of the United States Patent and Trademark Office

(12) **United States Patent**
Sweetland et al.

(10) Patent No.: **US 6,951,465 B2**
(45) Date of Patent: **Oct. 4, 2005**

(54) **MULTIPLE-CONTACT WOVEN POWER CONNECTORS**

(75) Inventors: Matthew Sweetland, Medford, MA (US); James Moran, Somerville, MA (US)

(73) Assignee: Tribotek, Inc., Burlington, MA (US)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

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(21) Appl. No.: 10/603,047

(22) Filed: Jun. 24, 2003

(65) Prior Publication Data

US 2004/0005793 A1 Jan. 8, 2004

Related U.S. Application Data

(63) Continuation-in-part of application No. 10/375,481, filed on Feb. 27, 2003, which is a continuation-in-part of application No. 10/273,241, filed on Oct. 17, 2002.

(60) Provisional application No. 60/348,588, filed on Jan. 15, 2002.

(51) Int. Cl.⁷ H01R 12/00

(52) U.S. Cl. 439/67; 439/329; 439/493

(58) Field of Search 439/66-67, 91, 439/591, 482, 493, 329, 496, 930; 361/218; 174/117 M; 29/705

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Primary Examiner—Gary Paumen

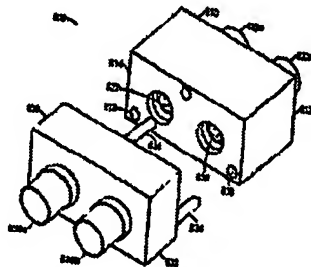
Assistant Examiner—Edwin A. Leon

(74) Attorney, Agent, or Firm—Wilmer Cutler Pickering Hale and Dorr, LLP

(57) **ABSTRACT**

Multiple-contact woven power connectors are provided that have at least a first set of loading fibers and at least a first set of conductors. When woven onto a set of loading fibers, the conductors define a space. The loading fibers are capable of delivering contact forces at the contact points of the conductors. The conductors can include a power circuit or a return circuit. The power connectors may also include tensioning springs that are capable of generating tensile loads within the loading fibers. The power connectors may further include mating conductors that can be coupled to the power/return circuits. When disposed within the first and second spaces, respectively, electrical connections between the conductors and the mating conductors can be established.

138 Claims, 40 Drawing Sheets



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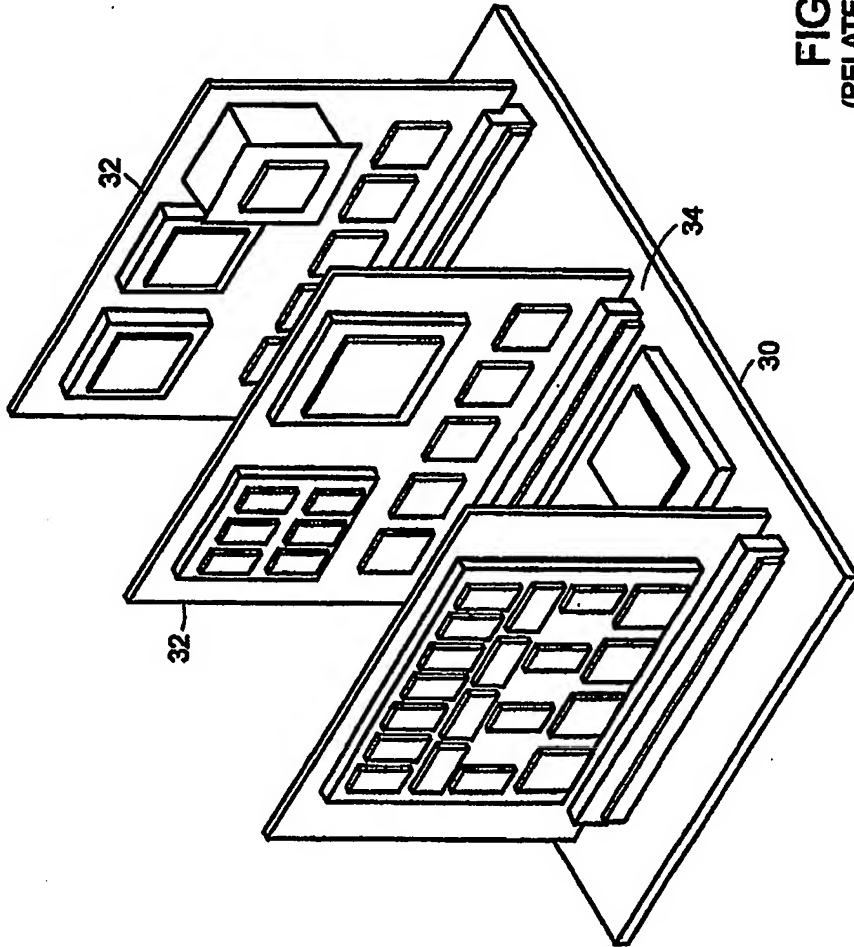


FIG. 1
(RELATED ART)

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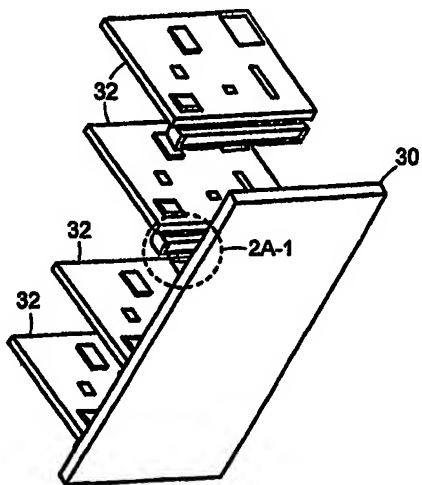


FIG. 2A
(RELATED ART)

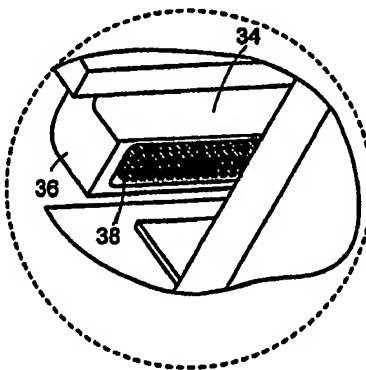


FIG. 2A-1

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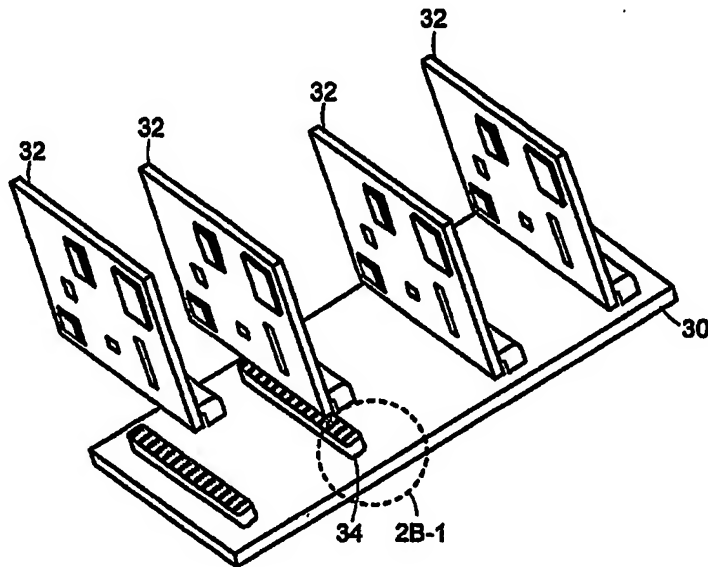


FIG. 2B
(RELATED ART)

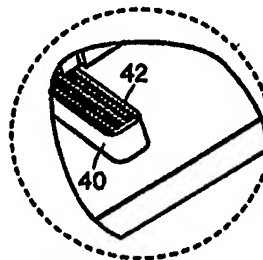


FIG. 2B-1

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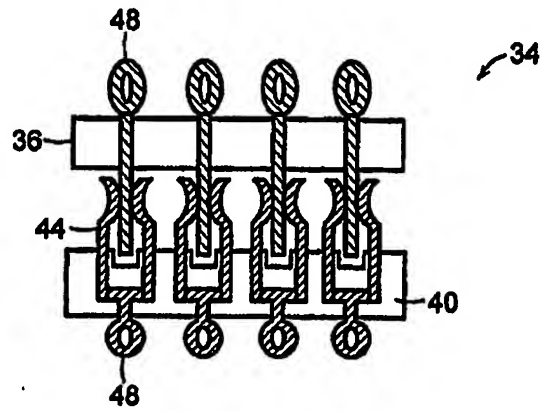


FIG. 3A
(RELATED ART)

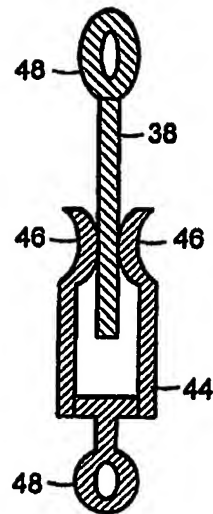


FIG. 3B
(RELATED ART)

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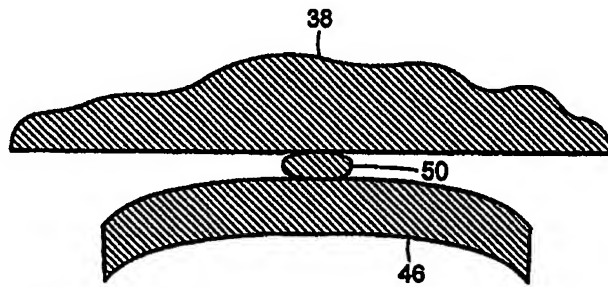


FIG. 4A

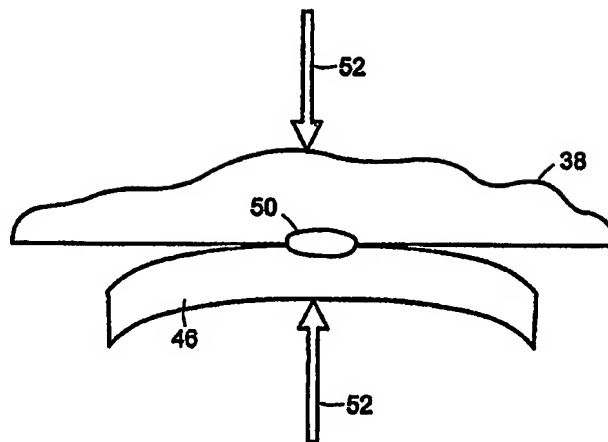


FIG. 4B

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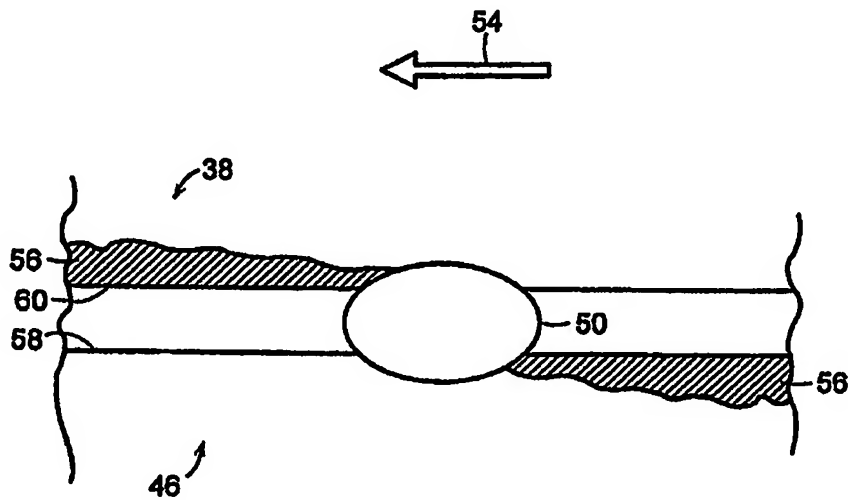


FIG. 5

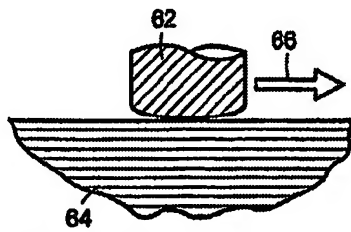


FIG. 6A

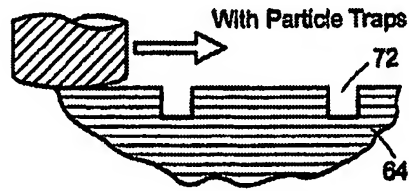


FIG. 6D

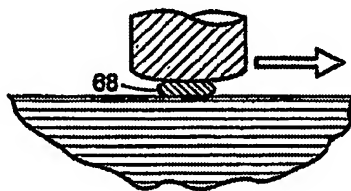


FIG. 6B

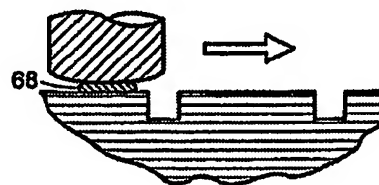


FIG. 6E

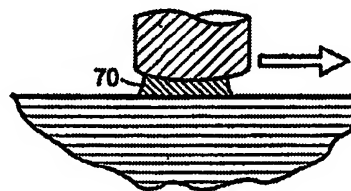


FIG. 6C

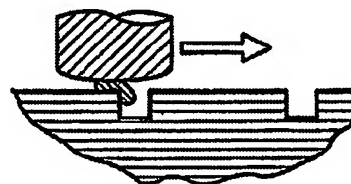


FIG. 6F

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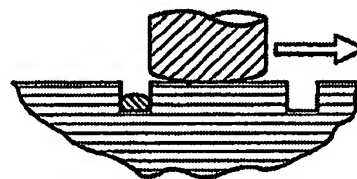


FIG. 6G

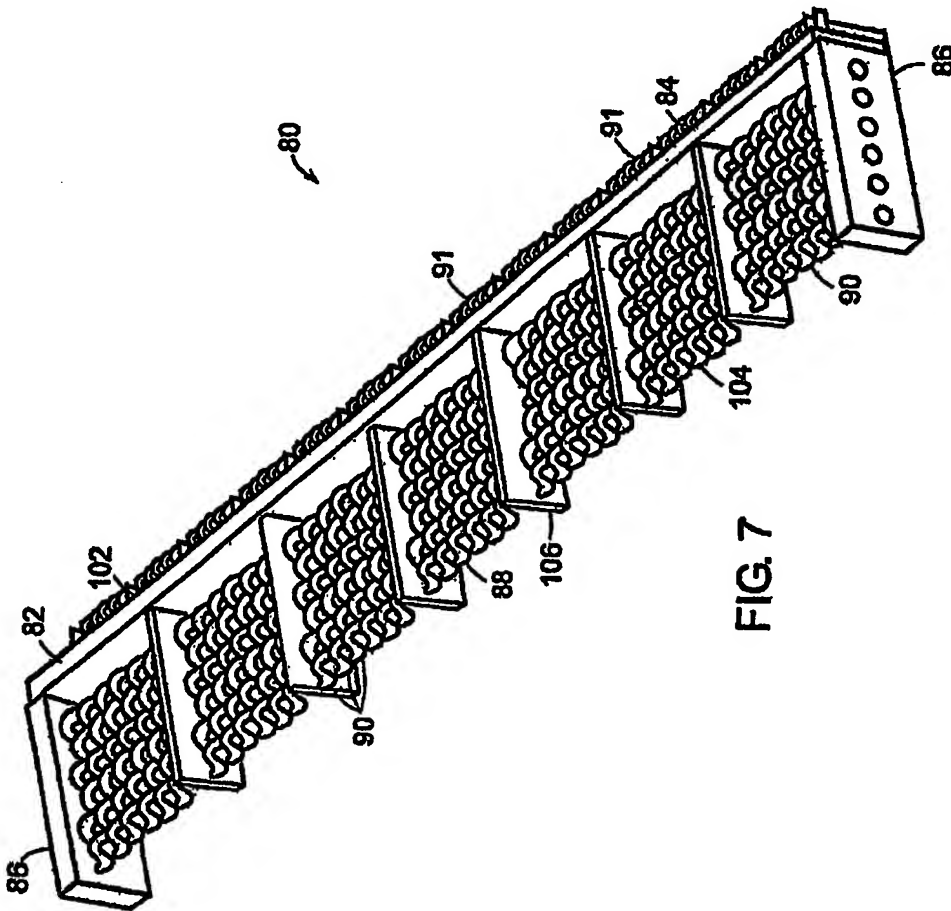
RELATED ART

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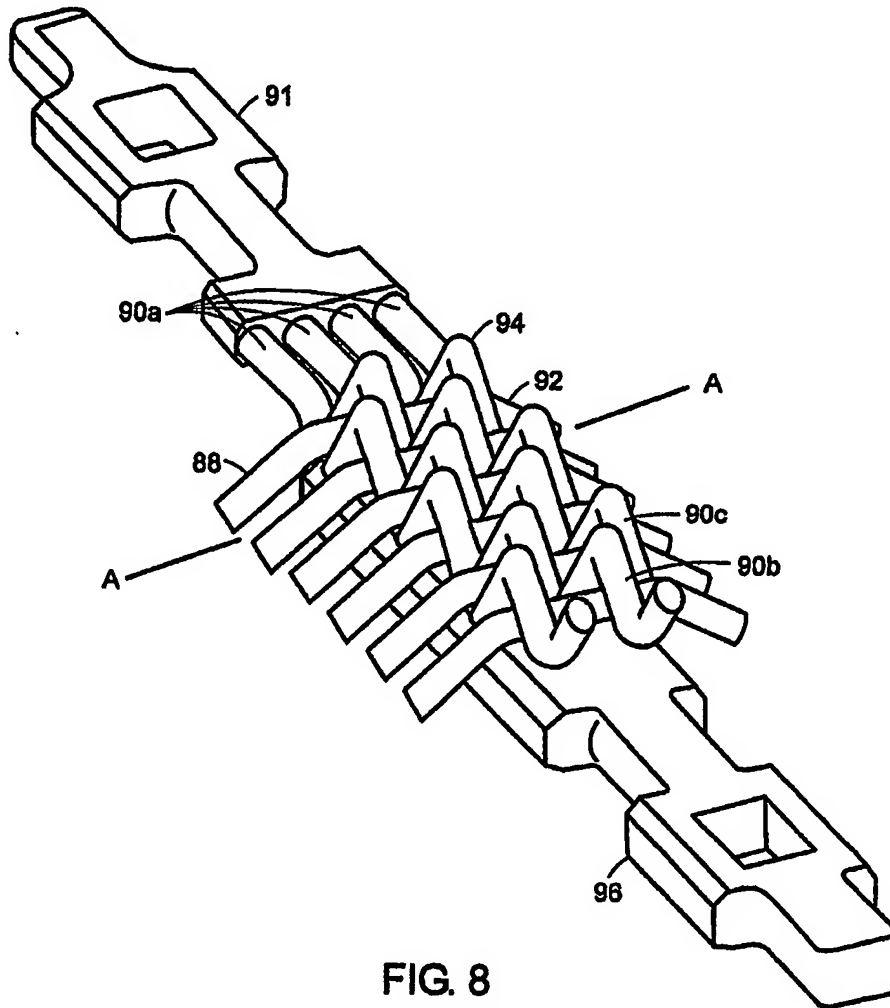


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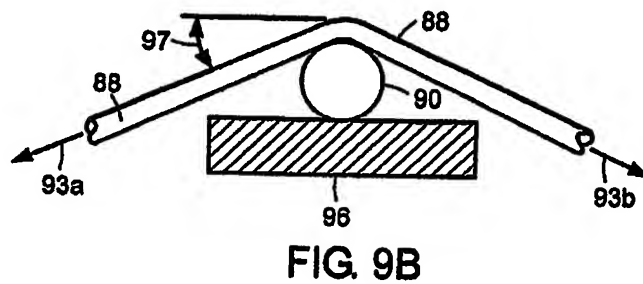
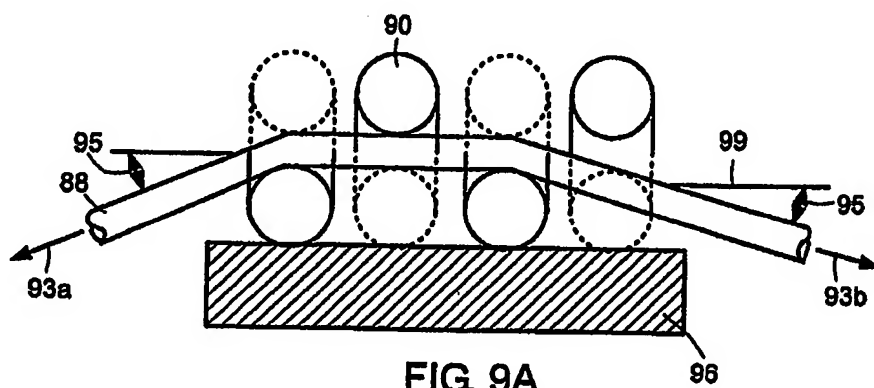


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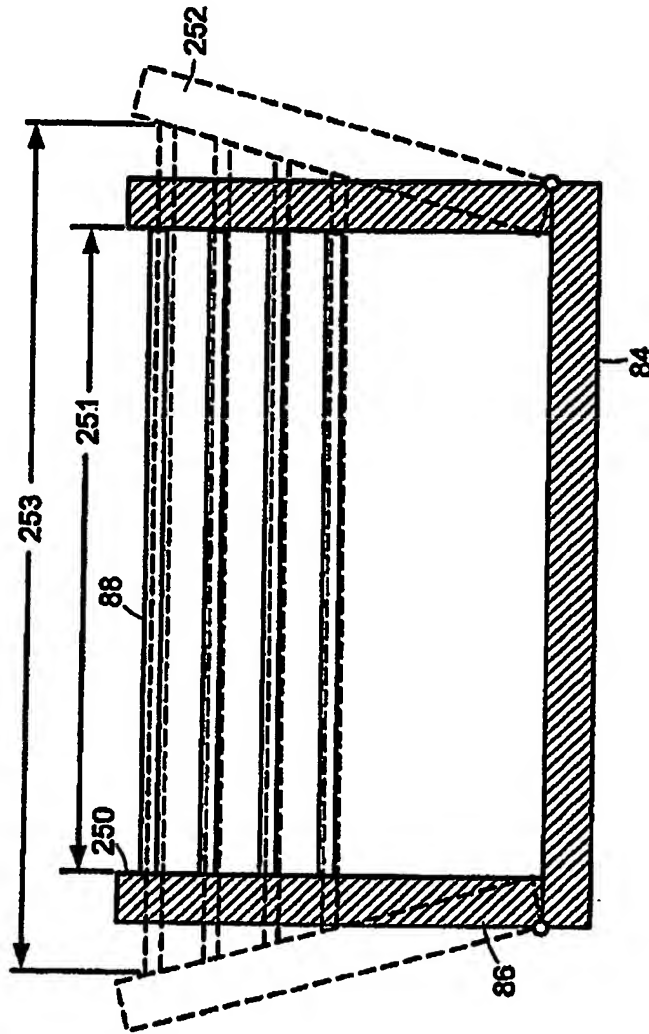


FIG. 10

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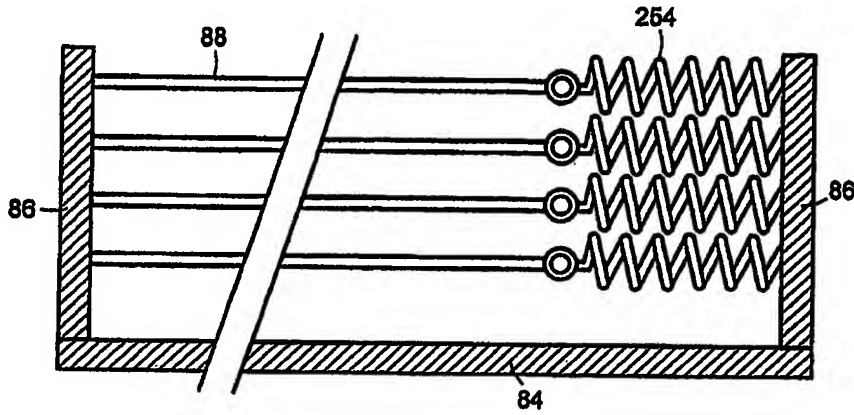


FIG. 11

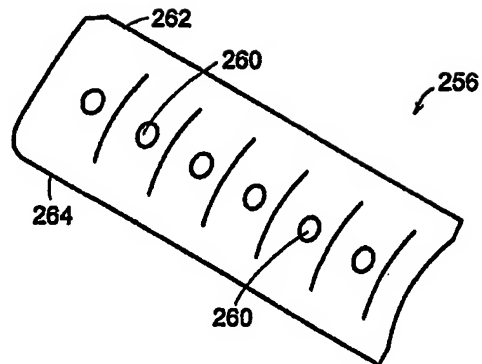


FIG. 12

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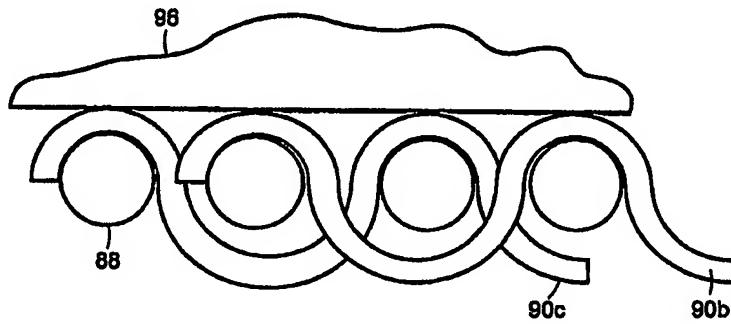


FIG. 13A

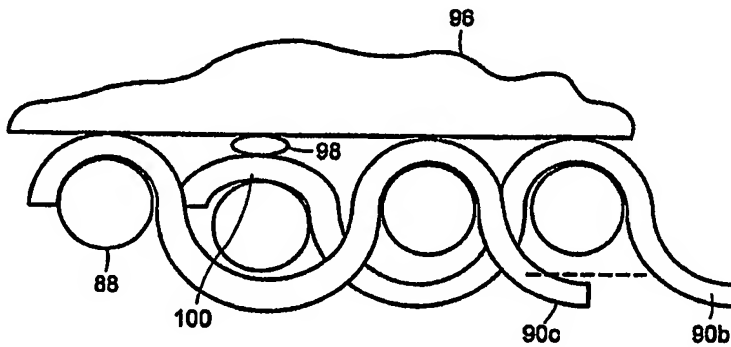


FIG. 13B

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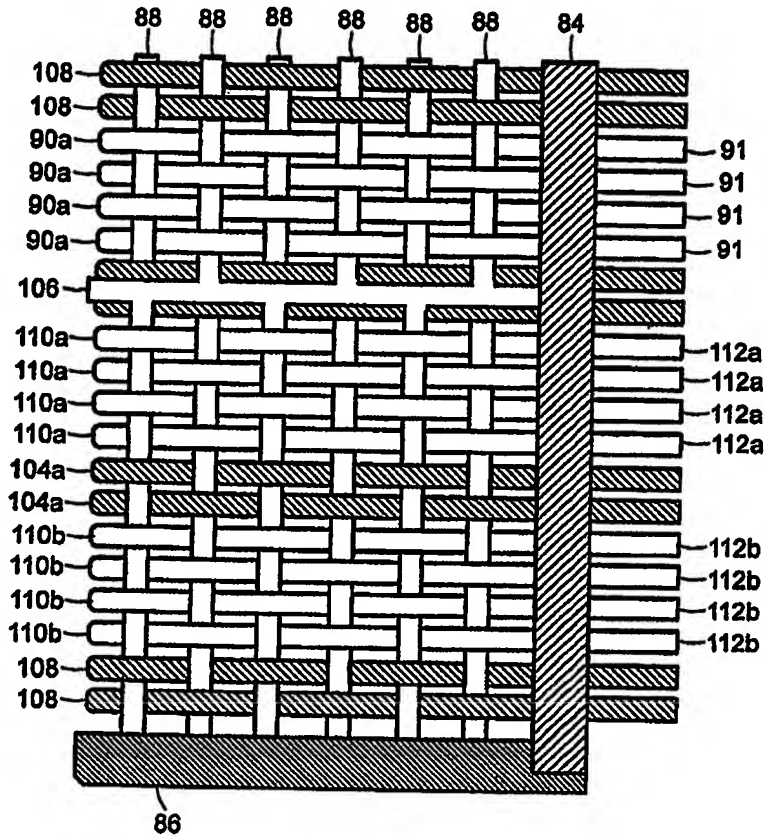


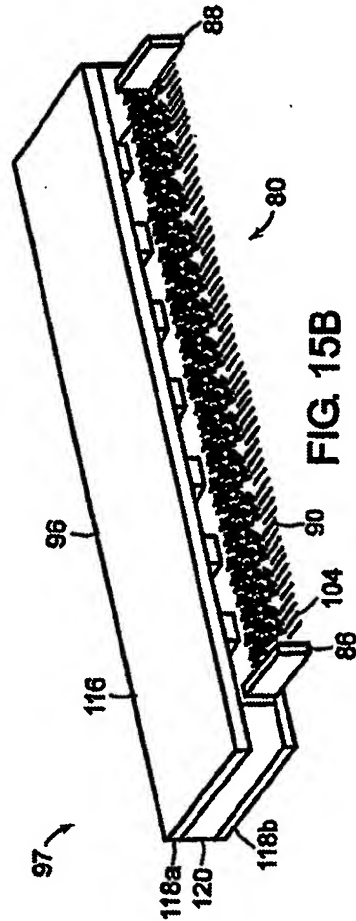
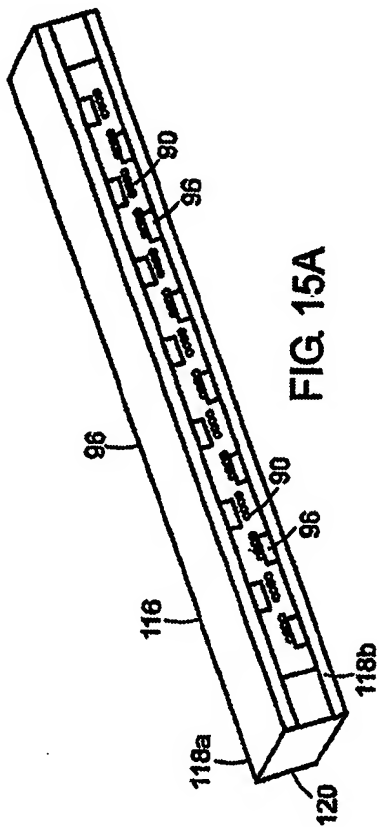
FIG. 14

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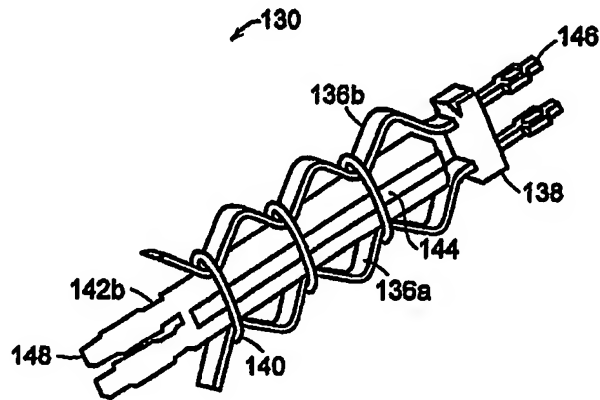


FIG. 16A

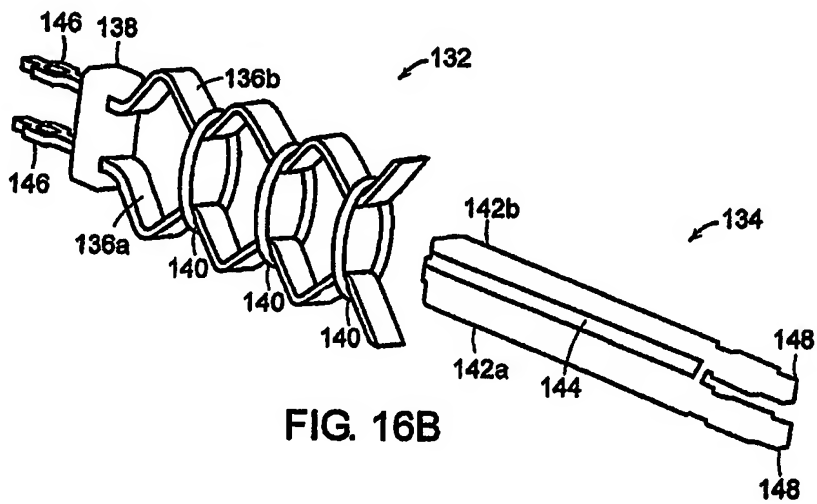


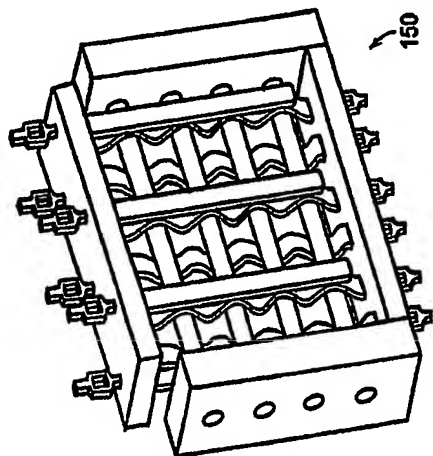
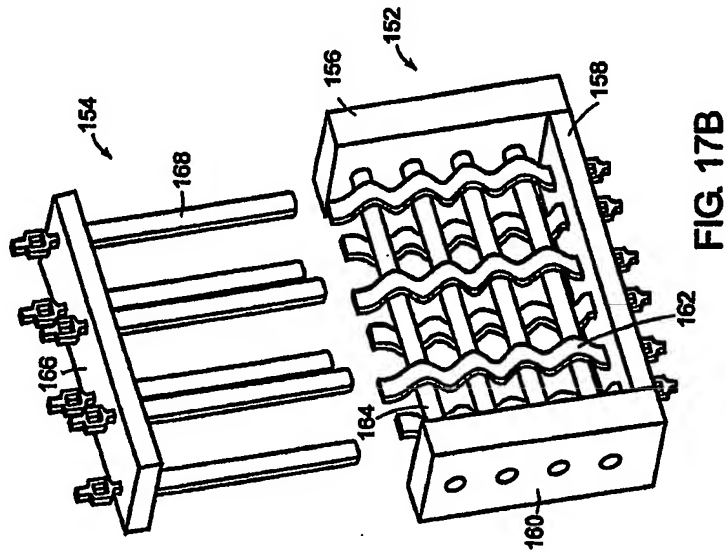
FIG. 16B

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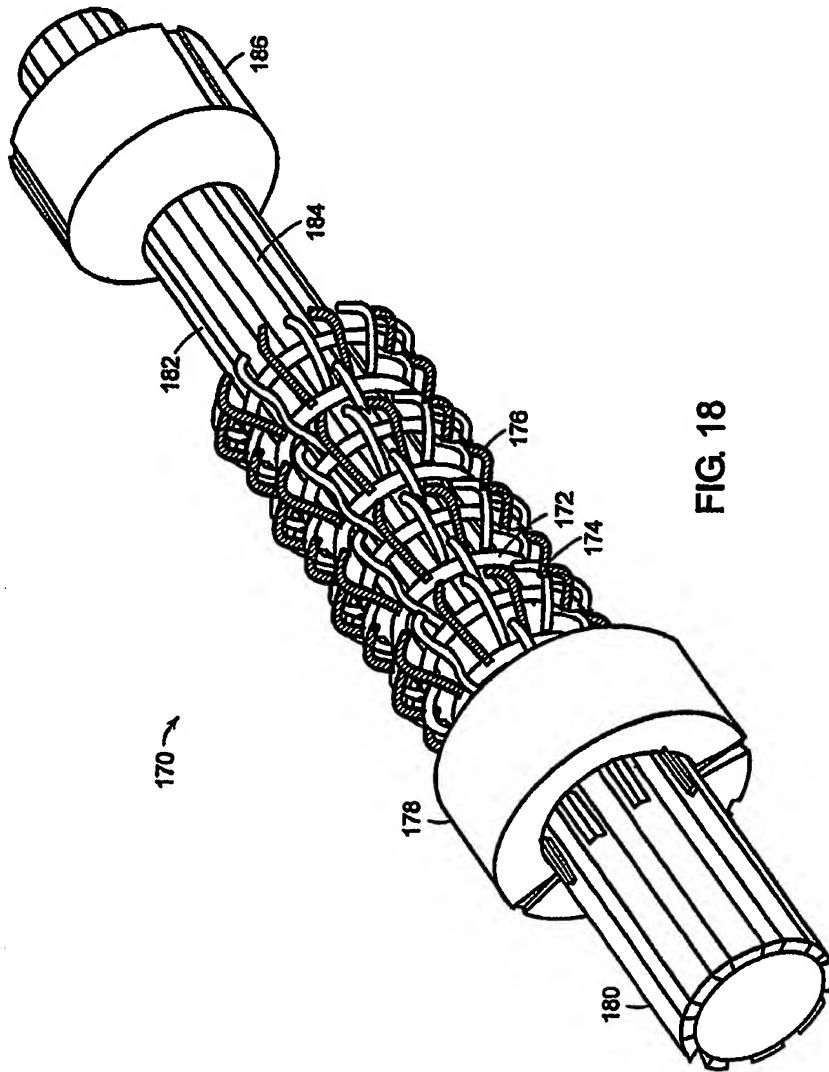


FIG. 18

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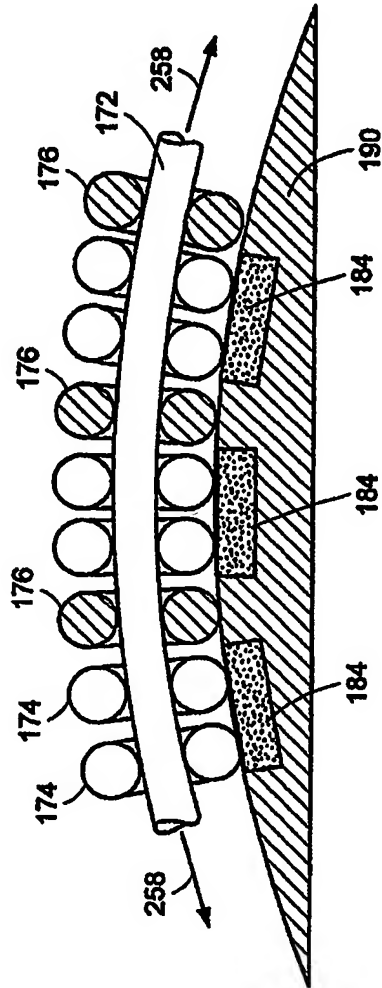


FIG. 19

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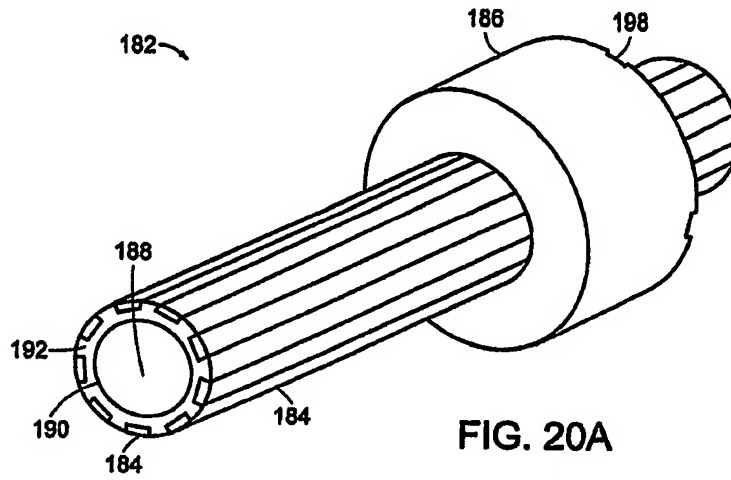


FIG. 20A

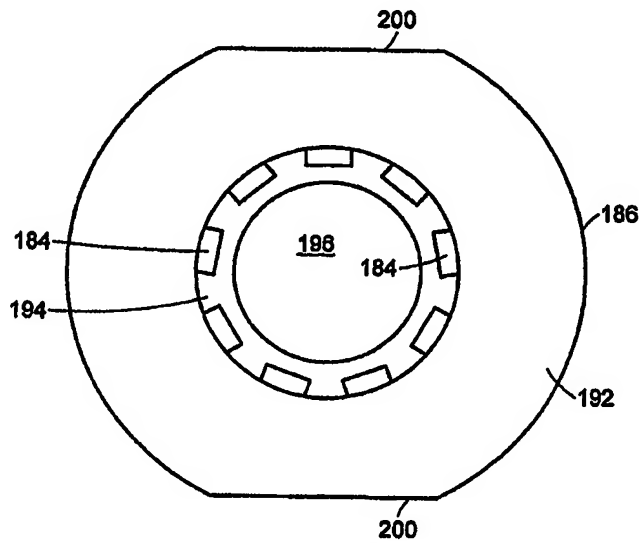


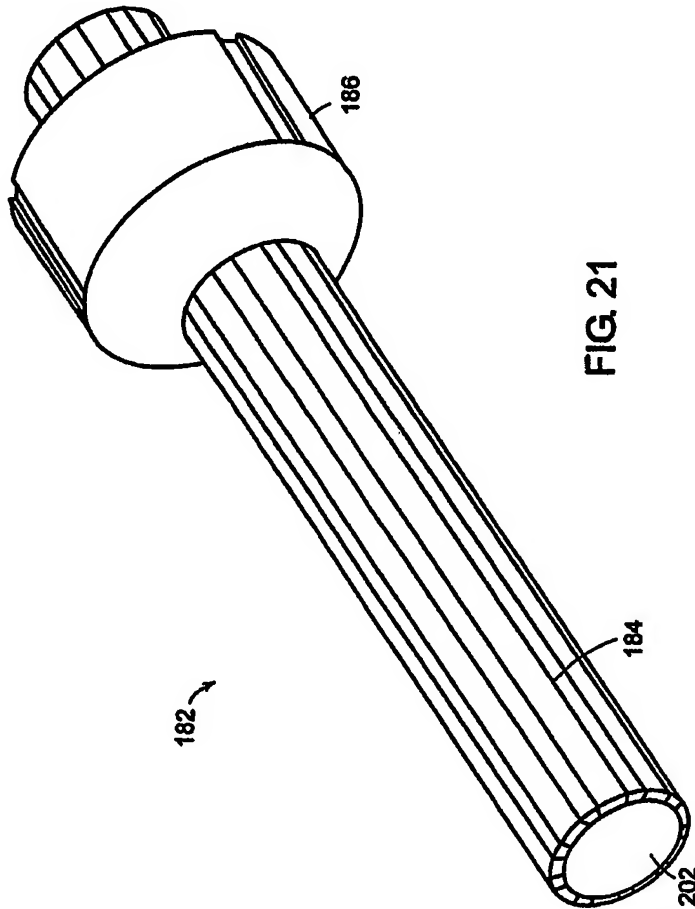
FIG. 20B

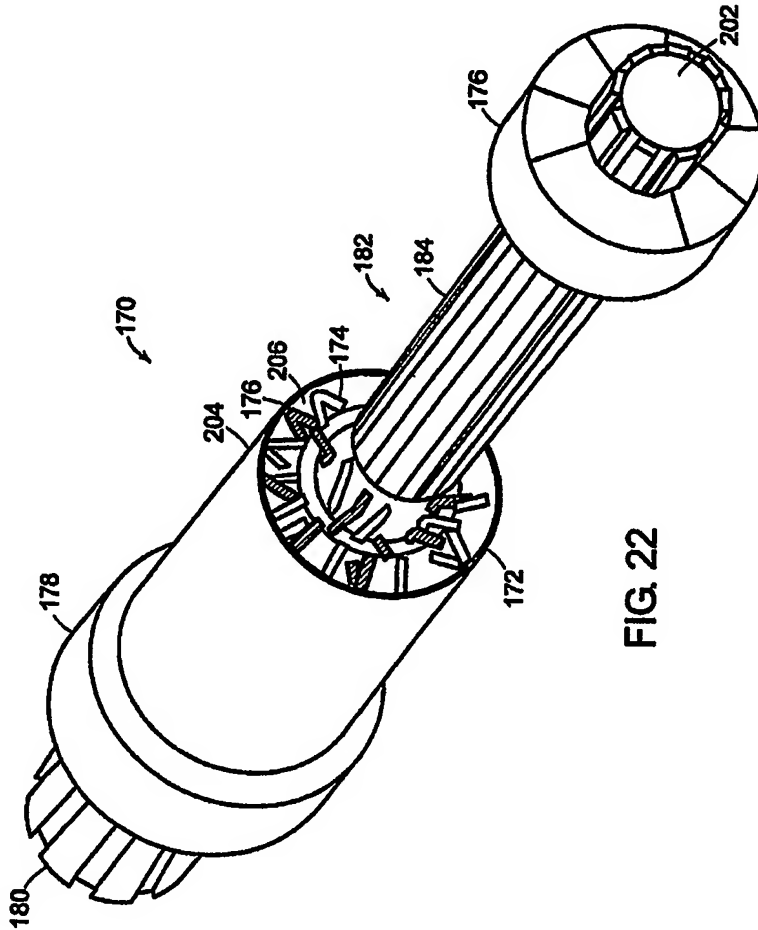
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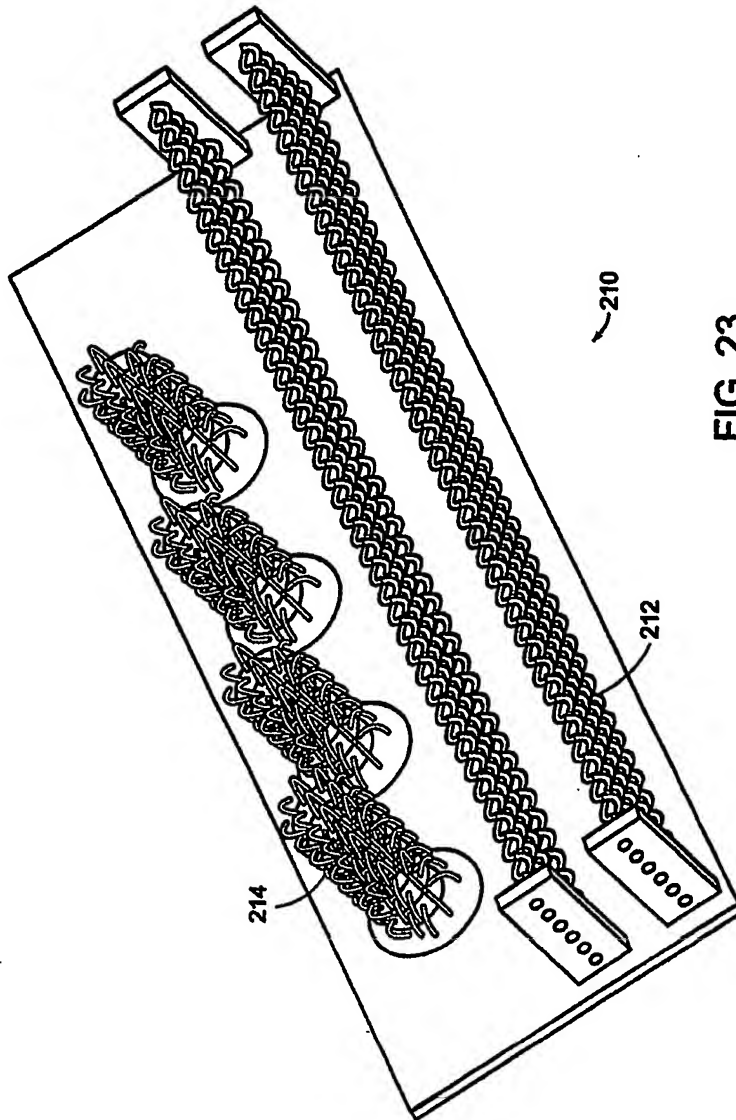


FIG. 23

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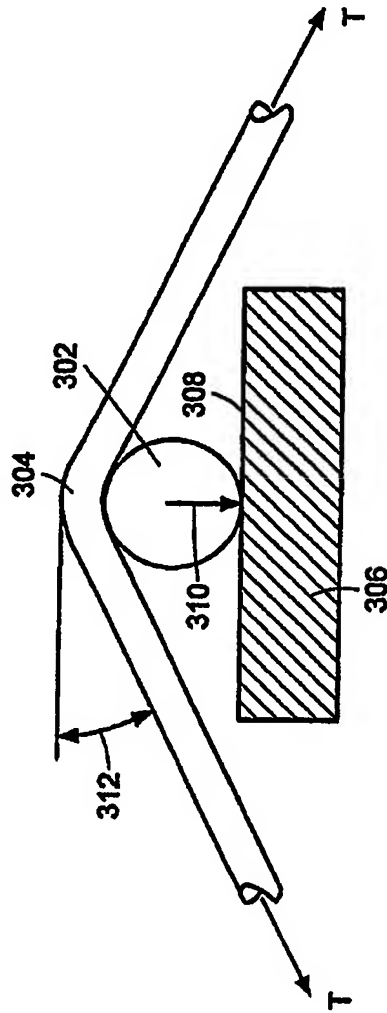


FIG. 24

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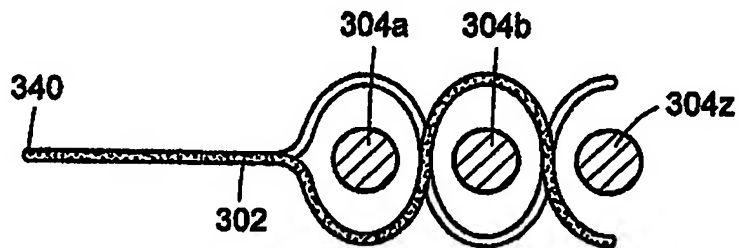


FIG. 25A

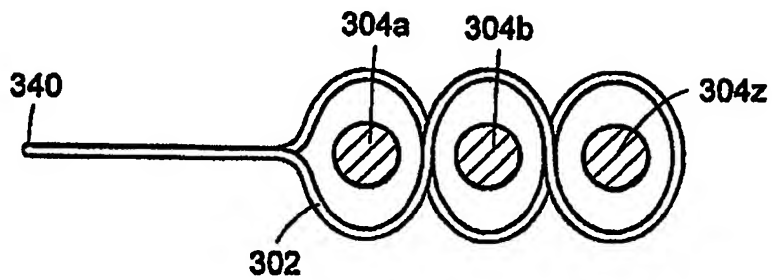


FIG. 25B

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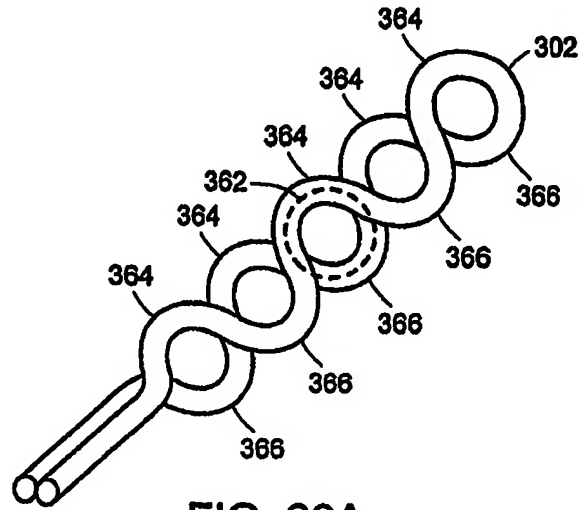


FIG. 26A

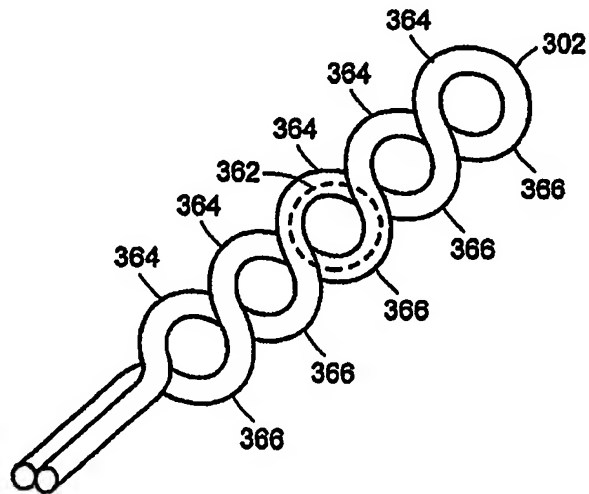


FIG. 26B

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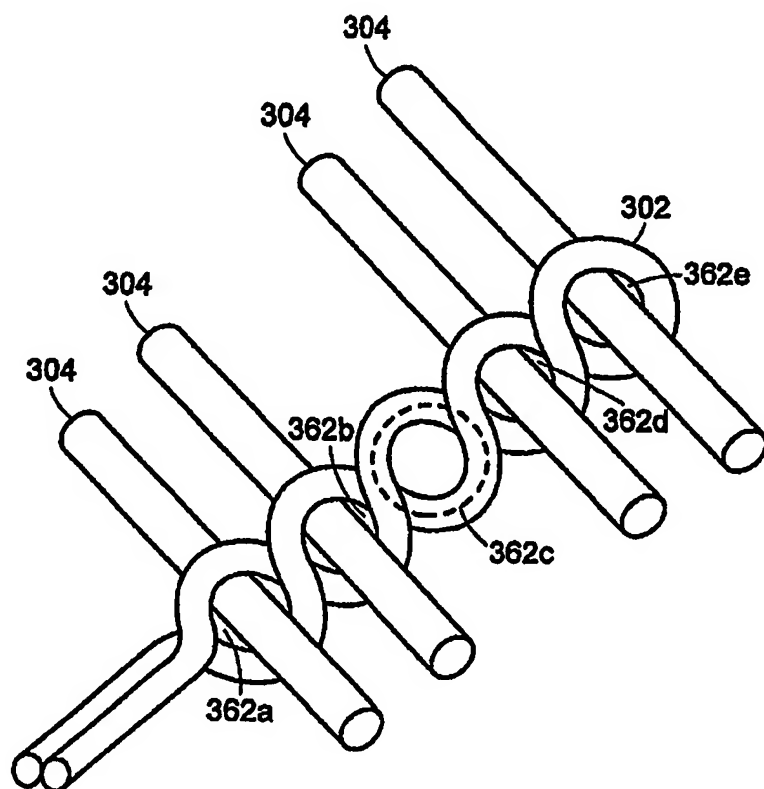


FIG. 26C

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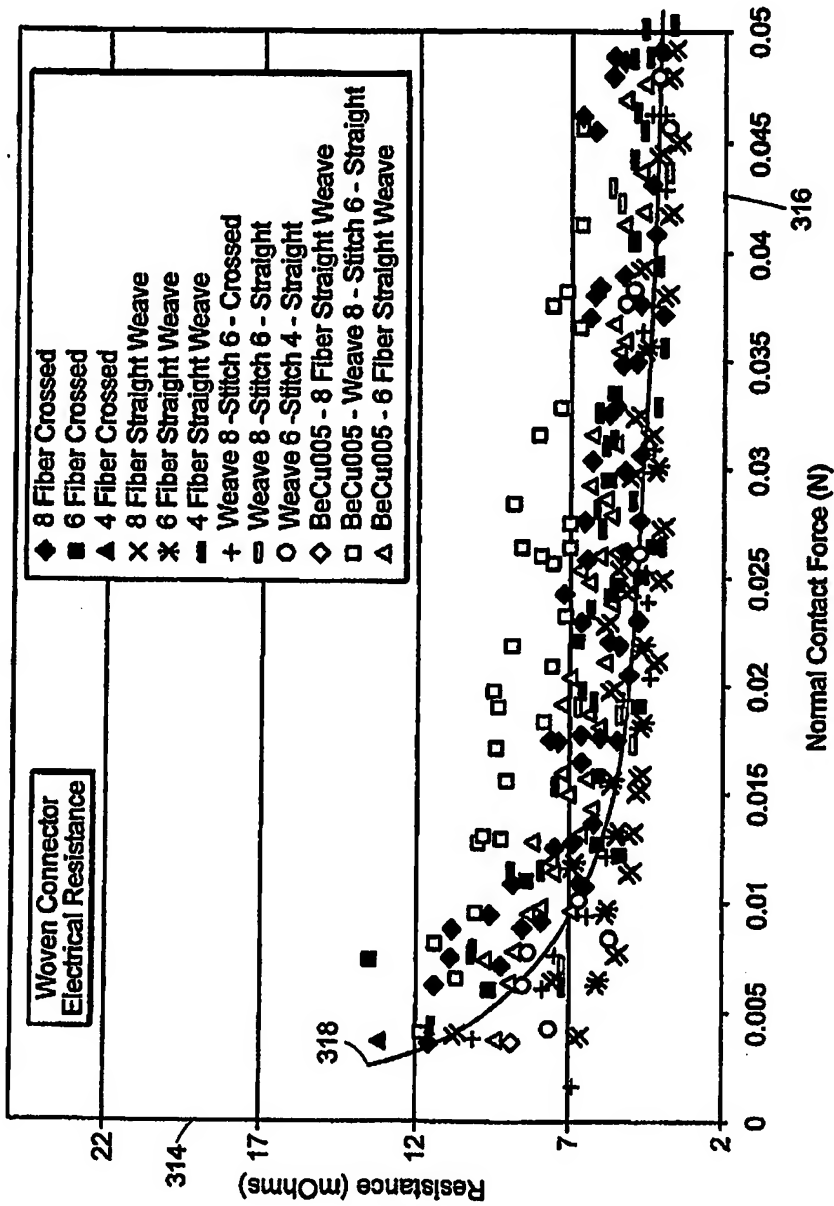


FIG. 27

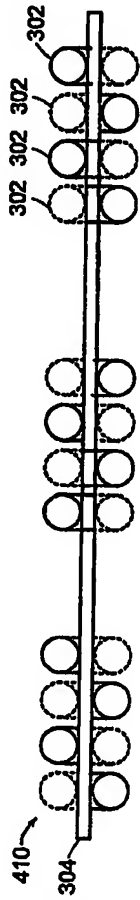


FIG. 28A

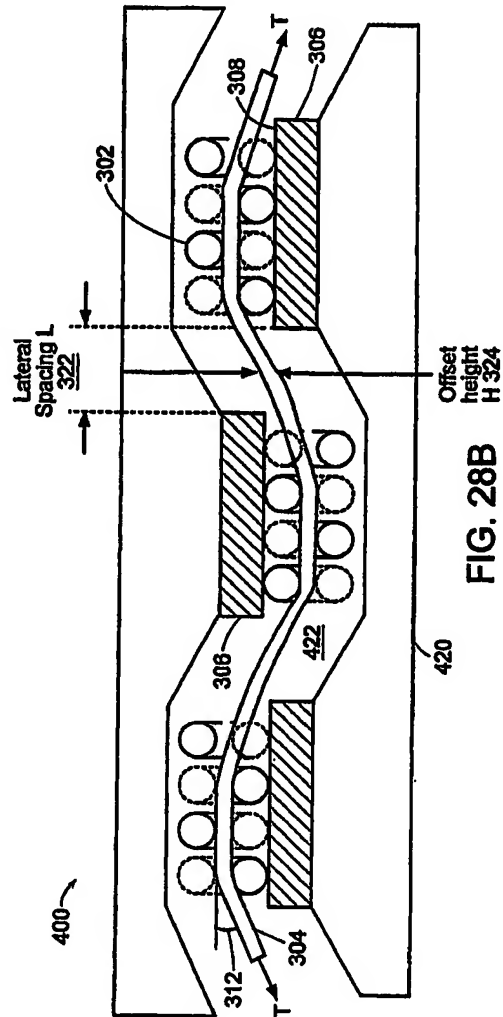


FIG. 28B

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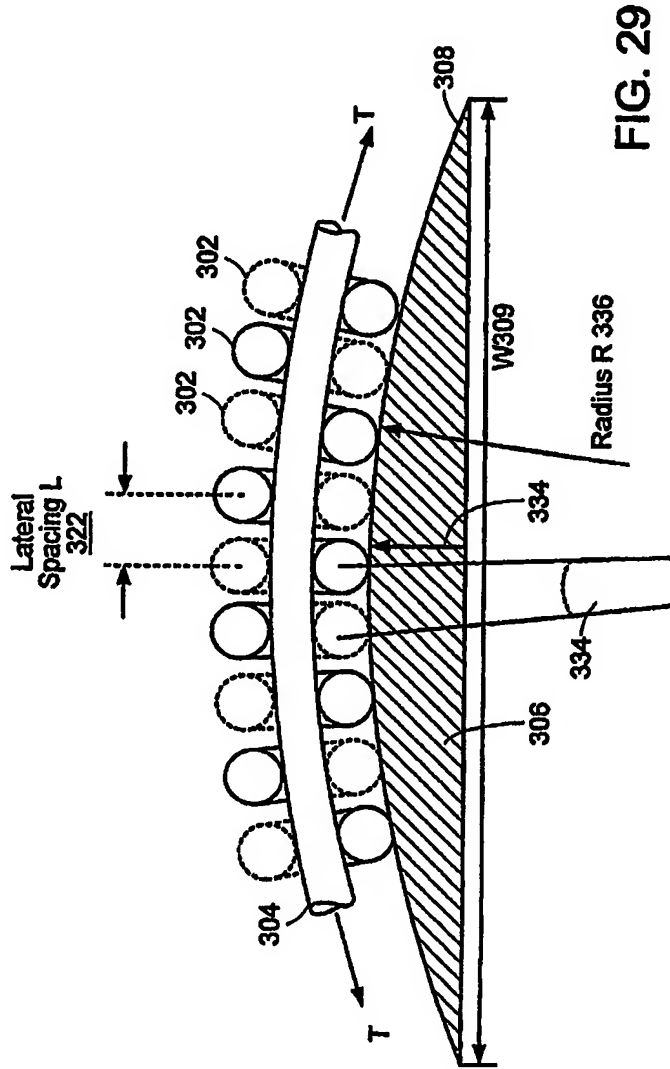


FIG. 29

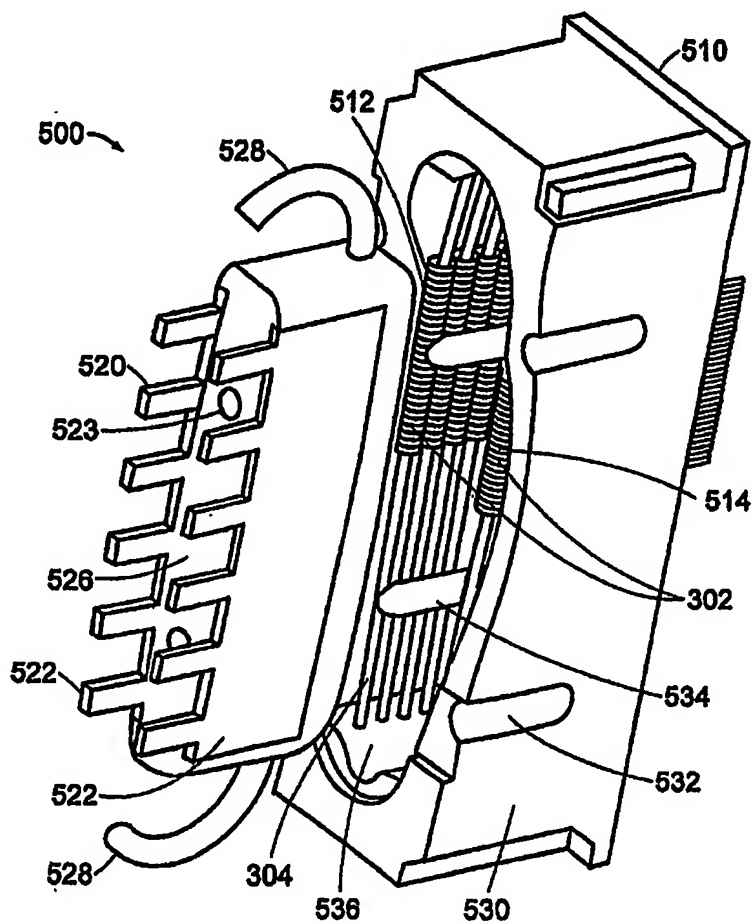


FIG. 30

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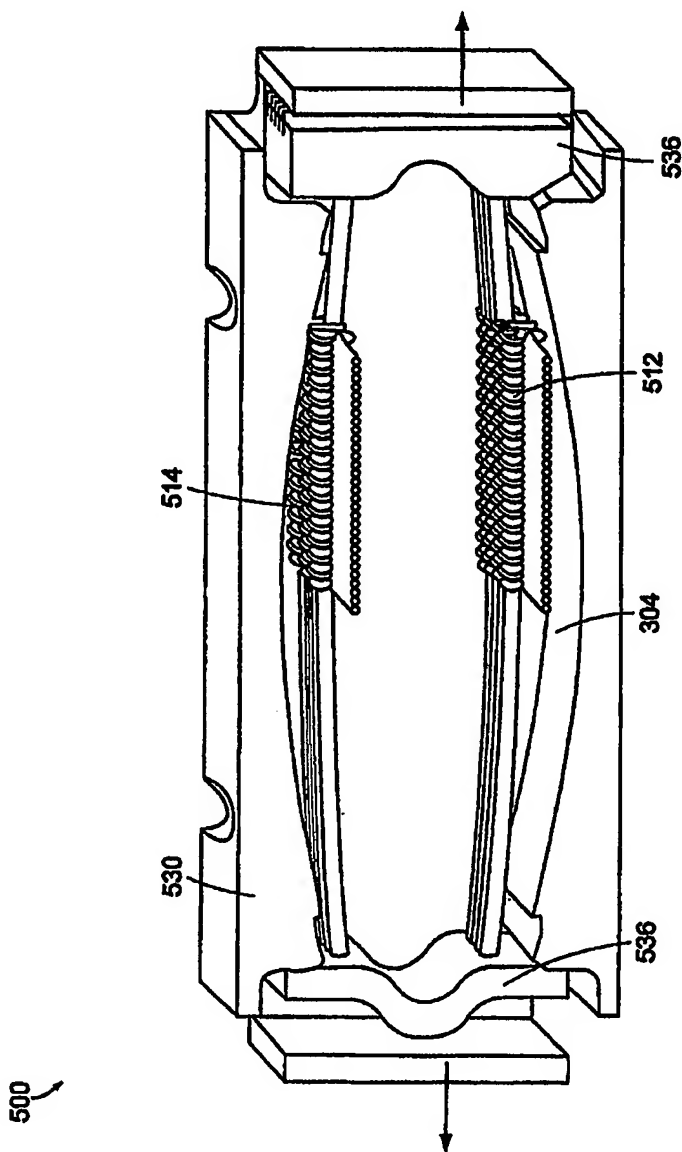


FIG. 31

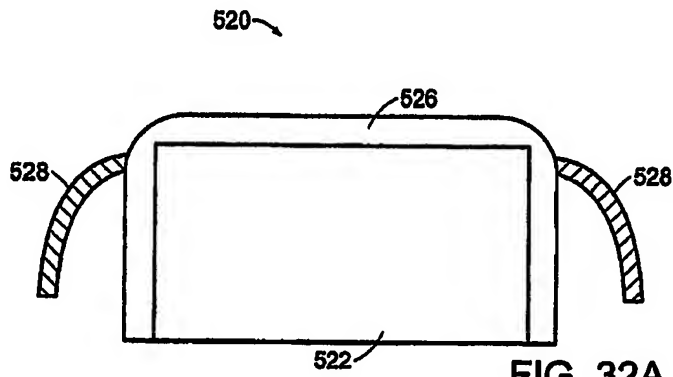


FIG. 32A

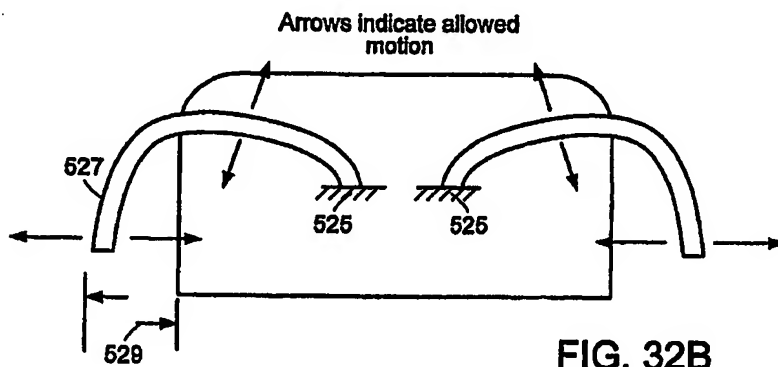


FIG. 32B

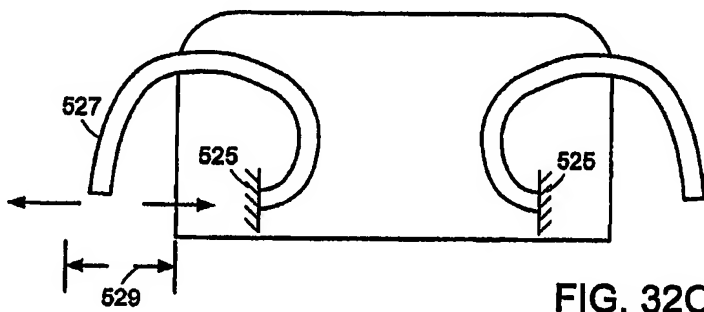


FIG. 32C

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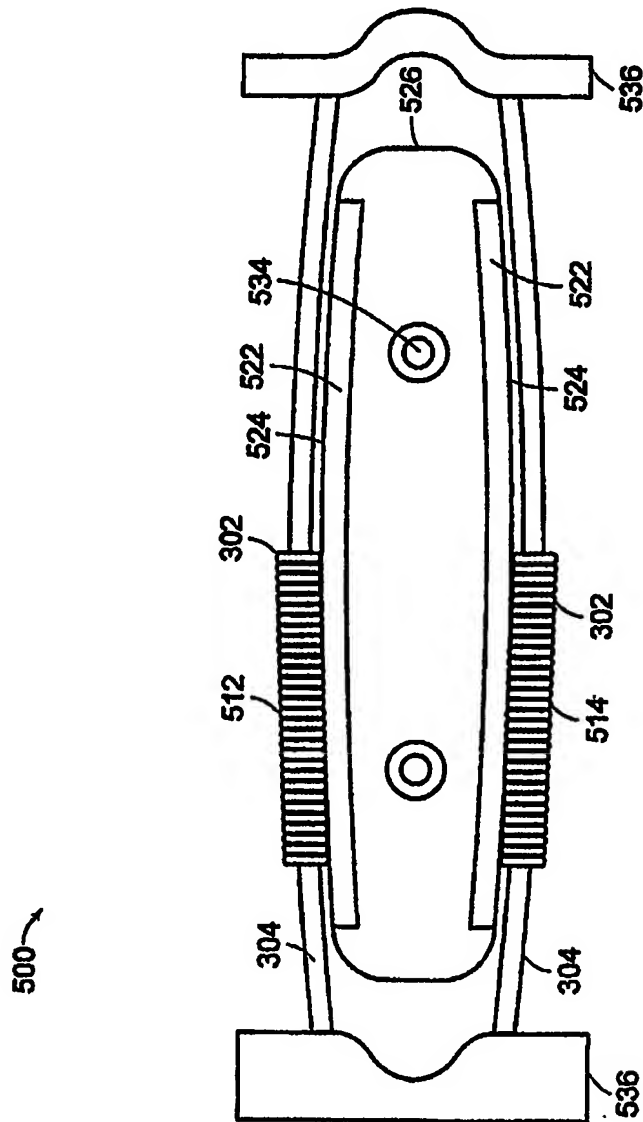


FIG. 33

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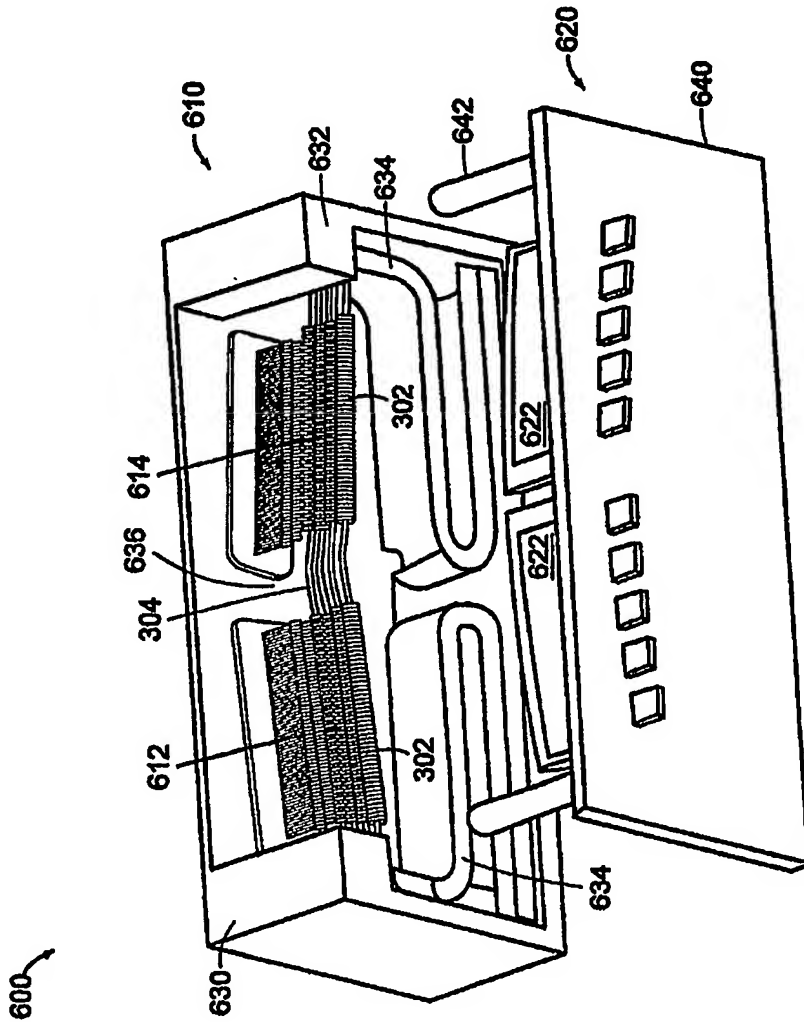


FIG. 34

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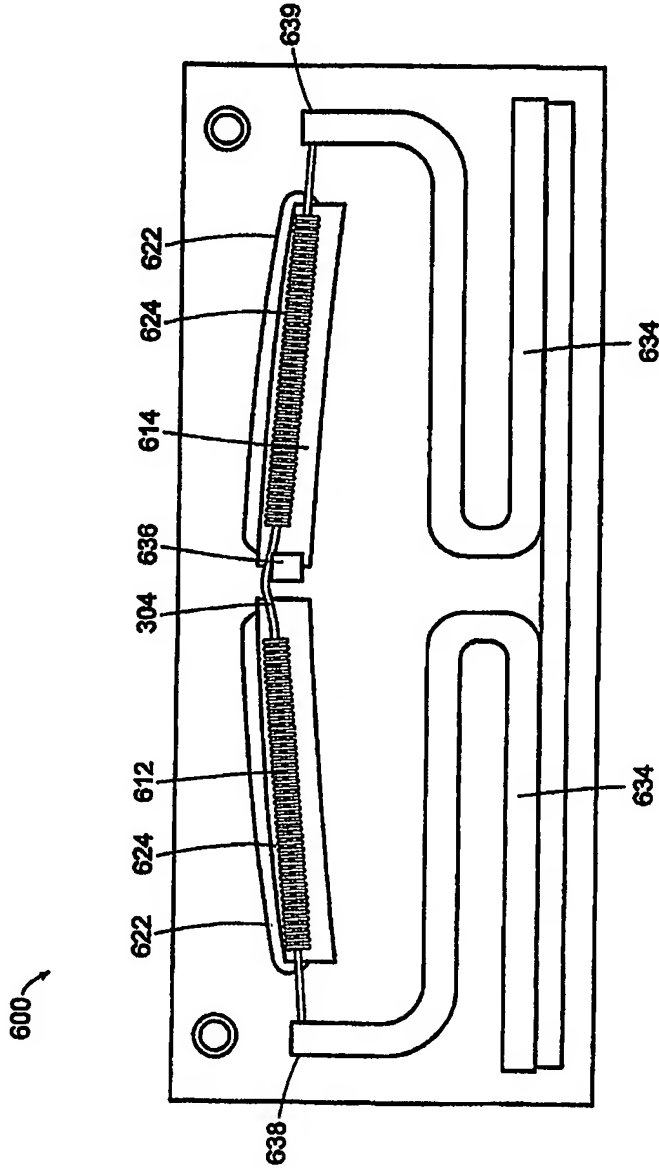


FIG. 35

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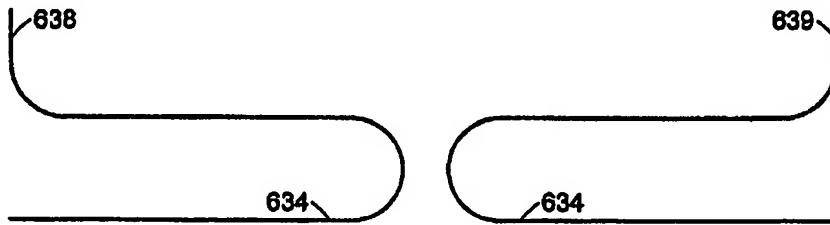


FIG. 36A

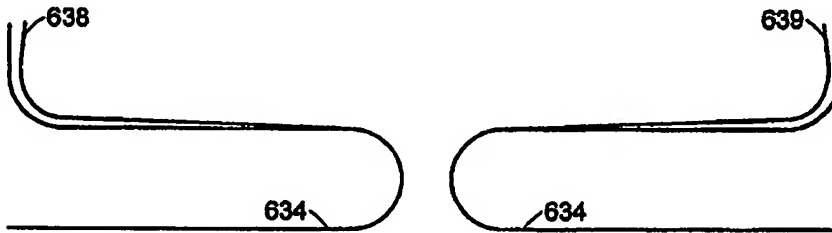


FIG. 36B

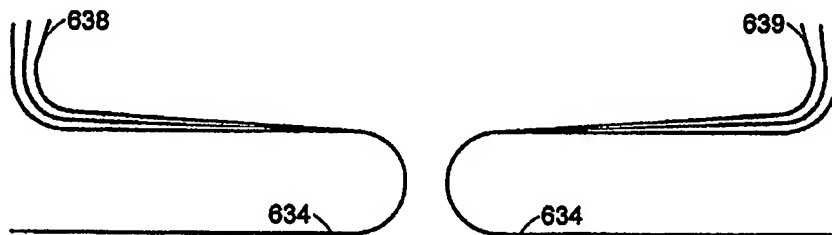


FIG. 36C

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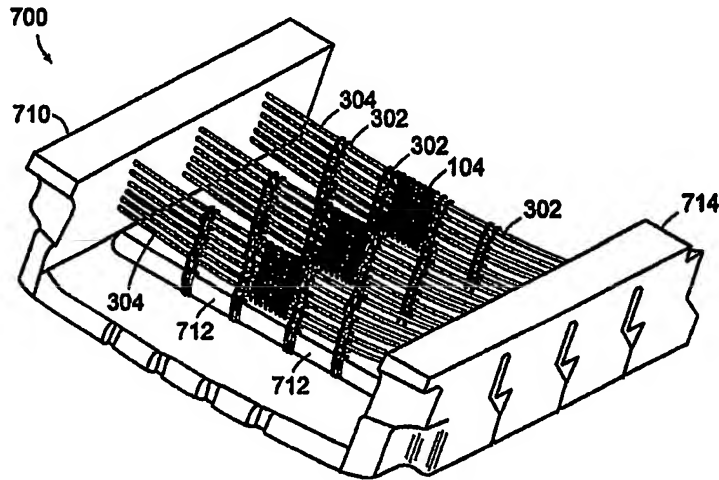


FIG. 37A

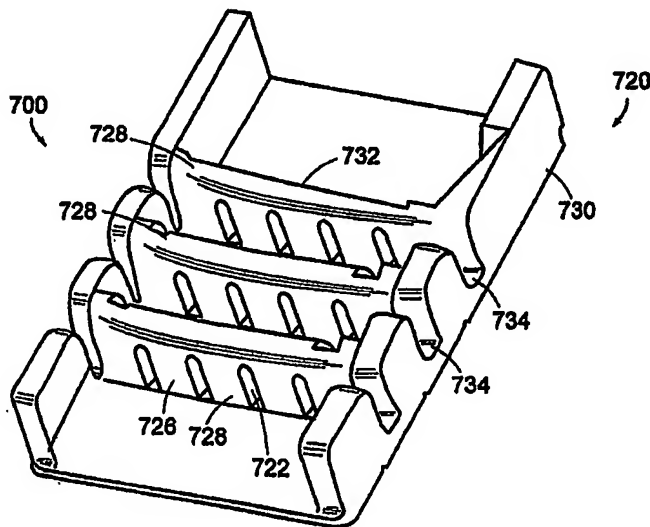


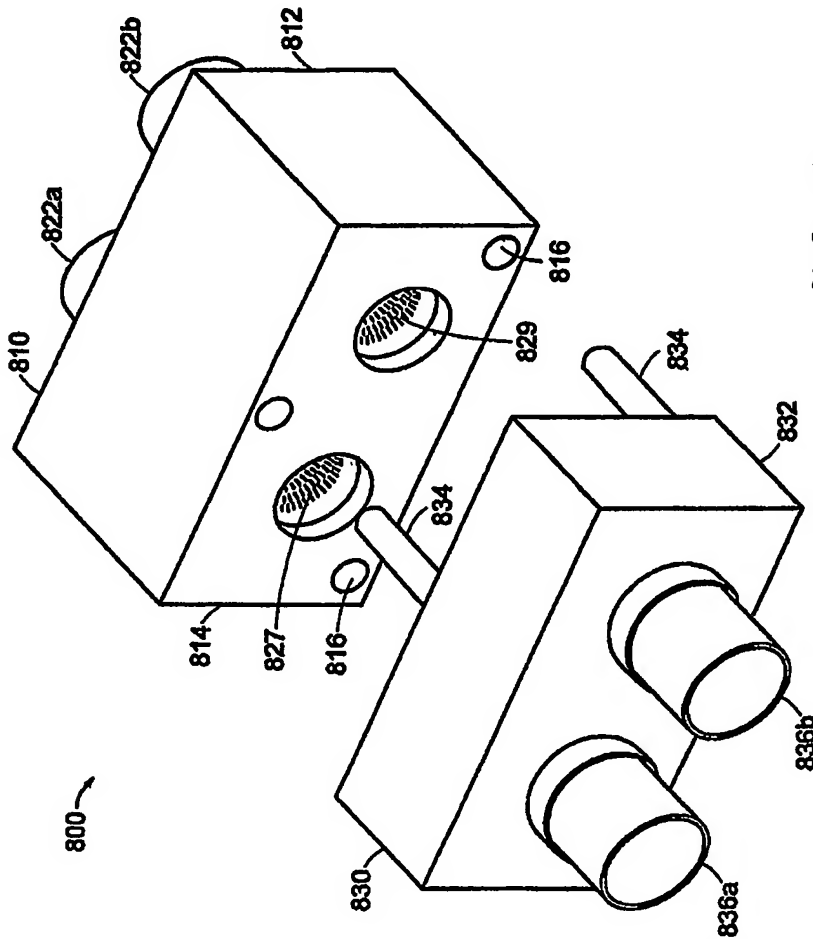
FIG. 37B

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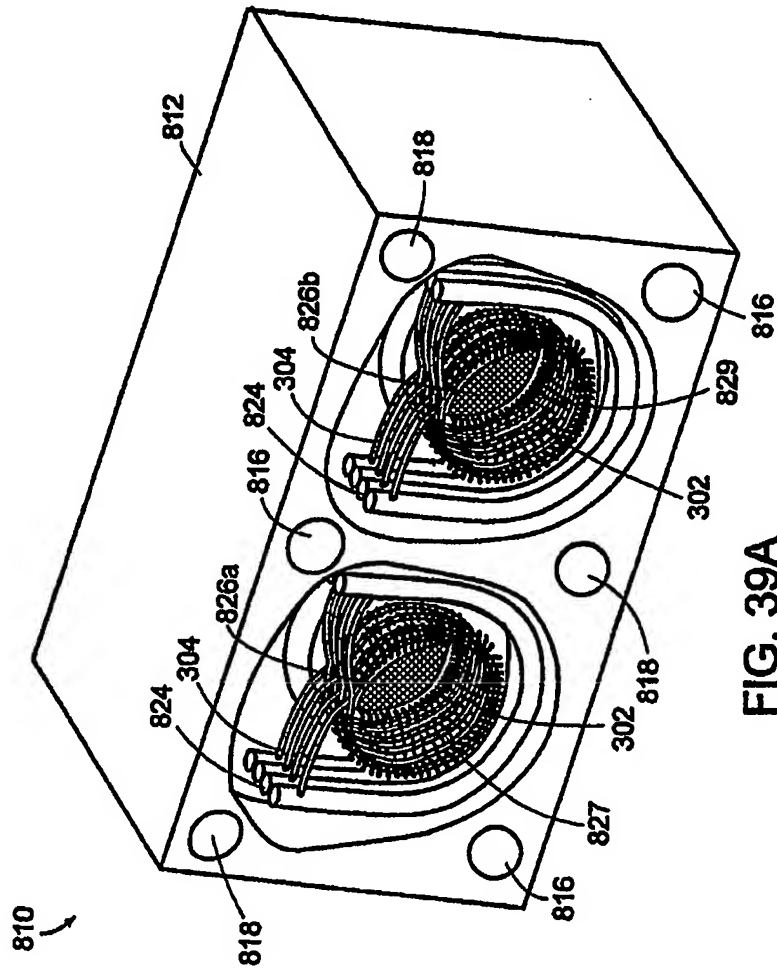


FIG. 39A

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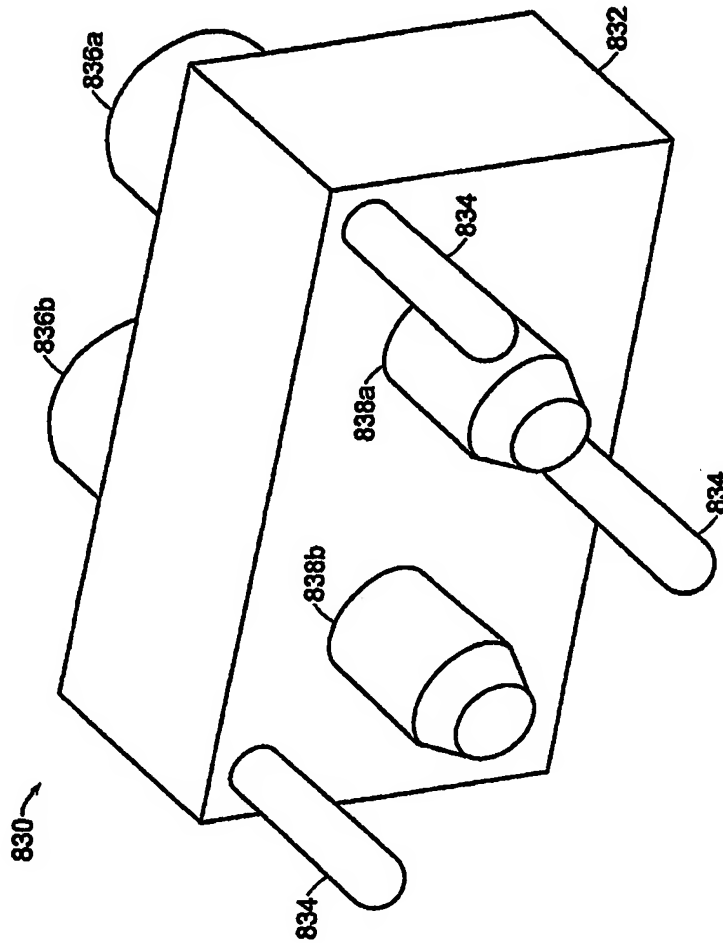


FIG. 40

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